

Product Name: DCG IV

Catalog No.: 0975

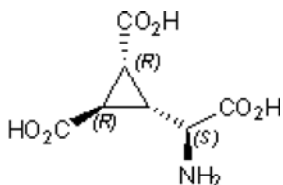
Batch No.: 20

CAS Number: 147782-19-2

IUPAC Name: (2*S*,2'*R*,3'*R*)-2-(2',3'-Dicarboxycyclopropyl)glycine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₇H₉NO₆
Batch Molecular Weight: 203.15
Physical Appearance: White solid
Solubility: water to 100 mM
 phosphate buffered saline to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.35 (Pyridine:Acetic acid:Water:Butanol [3:8:11:22])
HPLC: Shows 99.4% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -13.4 (Concentration = 1, Solvent = Water)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	41.39	4.47	6.89
Found	41.44	4.47	6.9

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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CAS Number: 147782-19-2

IUPAC Name: (2S,2'R,3'R)-2-(2',3'-Dicarboxycyclopropyl)glycine

Description:

Presynaptic depressant; highly potent agonist for group II mGlu receptors. Also available as part of the Group II mGlu Receptor Tocriset™ and Mixed mGlu Receptor Tocriset™.

Physical and Chemical Properties:

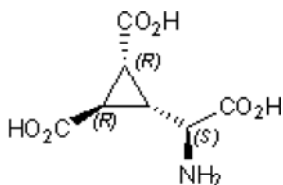
Batch Molecular Formula: C₇H₉NO₆

Batch Molecular Weight: 203.15

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 100 mM

phosphate buffered saline to 100 mM

When purchased as a 1mg unit, this product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:

Sold with the permission of Suntory Ltd.

References:

Brabet *et al* (1998) Comparative effect of L-CCG-I, DCG-IV and γ-carboxy-L-glutamate on all cloned metabotropic glutamate receptor subtypes. *Neuropharmacology* **37** 1043. PMID: 9833633.

Cartmell *et al* (1998) Characterization of [³H]-[2S,2'R,3'R]-2-(2',3'-dicarboxycyclopropyl)glycine ([³H]-DCG IV) binding to metabotropic mGlu₂ receptor-transfected cell membranes. *Br.J.Pharmacol.* **123** 497. PMID: 9504391.

Ishida *et al* (1993) A novel metabotropic receptor agonist: marked depression of monosynaptic excitation in the isolated rat spinal cord. *Br.J.Pharmacol.* **109** 1169. PMID: 8401927.

Ohfuné *et al* (1993) Synthesis of L-2-(2,3-dicarboxycyclopropyl)-glycines. Novel conformationally restricted glutamate analogues. *Bioorg.Med.Chem.Lett.* **3** 15.

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